United States Department of Agriculture
Forest Service
National Forests in North Carolina
Supervisor's Office
160A Zillicoa Street
P.O. Box 2750
Asheville, NC 28802
828-257-4200

File Code: 1950-1

Date: July 30, 2003

Dear Interested Citizen:

Enclosed is a copy of the Decision Notice for the T&T White Pine Thinning Project Environmental Assessment (EA) on the Pisgah Ranger District, Pisgah National Forest. You may recall that during the 30-day review of the EA earlier this summer, I was the Responsible Official for this project. The Pisgah District Ranger position was vacant at the time and was being filled by an acting District Ranger. When I assigned the acting Pisgah District Ranger, I did not delegate timber sale authority with the acting assignment. Since then, the permanent Pisgah District Ranger has been assigned and they do have timber sale authority. As such, they have become the Responsible Official for this project and will sign the Decision Notice.

Changes to the EA include only minor typographical and pagination corrections; therefore, final copies of the EA are only being mailed upon request. A "Response to Comments" appendix (Appendix C), documenting comments and Agency response based on the 30-day review of the EA, has been included with the decision notice.

The decision is subject to appeal pursuant to 36 CFR 215.7. A written Notice of Appeal must be postmarked or received within 45 days after the date this notice is published in the Asheville Citizen-Times, Asheville, North Carolina. The Notice of Appeal should be sent to: USDA Forest Service, Southern Region, ATTN: Appeals Deciding Officer, 1720 Peachtree Road, NW, Suite 811N, Atlanta, Georgia 30309.

Appeals must meet content requirements of 36 CFR 215.14. For additional information on the decision please contact Ted Oprean, Project Leader at 828-877-3265 or Michael Hutchins NEPA Coordinator at 828-682-6146.

Sincerely,

/s/ Monica J. Schwalbach

for JOHN F. RAMEY
Forest Supervisor

Enclosure

Decision Notice

& Finding of No Significant Impact

T&T White Pine Thinning Project

USDA Forest Service
Pisgah Ranger District, Pisgah National Forest
Transylvania County, North Carolina
Compartments 110 and 119

Decision and Reasons for the Decision

Decision

Based upon my review of the alternatives, I have decided to select **Alternative B** (Selected Alternative) of the *T&T White Pine Thinning Project Environmental Assessment* (EA) on the Pisgah Ranger District, Pisgah National Forest and the Mitigation Measures listed in Section 2.2, Chapter 2, T&T EA. The Selected Alternative will:

- Commercially thin 3 white pine plantations (about 49 acres total) using ground-based logging systems (rubber tired skidder, 4-wheel drive farm tractor, horses, etc.) and reconstruct about 0.6 miles of existing non-classified (temporary) roads. These temporary roads will be seeded for wildlife (linear fields) following project implementation, and will be closed to vehicles (including ATVs), horses, and mountain bikes. This will be the first thinning of these 3 plantations, which were planted about 40 years ago. The commercial thinning operation will remove approximately 45-50% of the white pine in the stands. All commercial white pine will be removed below State road 1324 in stand 119/04 up to the streams edge. Trees along the streams edge will be directionally felled away from the stream. Any tree that falls across the stream or into it will be left in place. Trees to be removed will include those with damaged tops, signs of insect attack, suppressed trees, poor form and those that need to be removed to increase space for the residual trees to grow into. During the thinning operation, the stumps of the cut trees will be treated with a fungicide containing borax (Sporax) to prevent annosus root rot from spreading and will be required though Special Provision R8-21g# - Treatment of Stumps (8/01). Sporax will not be applied to cut white pine stumps below State road 1324 in stand 119/04 because all white pine will be removed; there will not be host trees left that could get infected with annosus root rot. There will be no new road construction, stream crossings, or site preparation (ripping or underburning) associated with this project. An existing stream ford on Forest Service Road 5324 will be armored with gravel prior to log trucks hauling timber from stand 110/07.
- Prune the first 16 feet of the remaining white pine trees with hand tools after the stand is thinned.
- Rip and seed 4 existing abandoned farm and logging roads (approximately 1 mile length) used for the thinning operations with perennial seed for turkey and deer. This will add an estimated 1-acre of wildlife habitat in the form of linear openings to the 2 compartments within the project area.
- Treat the understory vegetation following harvesting to reduce mountain laurel, rhododendron, soft mast tree species (such as red maple, black gum, black birch, wahoo striped maple, and silverbell) and invasive exotic species (tree of heaven, princess tree, and multi-floral rose) with hand tools and herbicide (Triclopyr). Herbicide will be applied by hand, using a 1 quart squirt bottle with Garlon 3A for the cut-stump treatments and a back pack sprayer with Garlon 4 and a #30 gun jet for the streamline treatments, and not aerially or with a spreader. Separate risk

assessments for these herbicides are in the project record.

The Selected Alternative will also incorporate mitigation measures (Section 2.2, T&T EA) and an additional opportunity of replanting a small population of *Oenothera perennis* to more suitable habitat (Section 2.3, T&T EA).

When compared to the other alternatives, I believe the Selected Alternative best meets the purpose and need for the project (Section 1.4, T&T EA), which is to improve residual white pine trees' resistance to southern pine beetle and annosus root rot, improve their economic value (Table 2-1 and Section 3.2.3.2, T&T EA), and improve wildlife habitat (Table 2-1 and Section 3.3.3.2, T&T EA). The Selected Alternative also addresses the 3 Key Issues for the project (Section 1.7.1, T&T EA), which were Forest Health (Section 3.2.3.2, T&T EA), Wildlife Habitat (Section 3.3.3.2, T&T EA), and Herbicide Use (Sections 3.3.3.4, 3.4.2.2, and 3.5.2.2, T&T EA). This alternative meets requirements under the National Environmental Policy Act, National Forest Management Act, and the Endangered Species Act.

Background

As stated in Section 1.4.2 of the EA, the need for the proposal was because:

- Existing white pine stands are overstocked, experiencing annosus root rot, increasing their susceptibility to wind throw and insect attack;
- Existing grass/forb ratios are 0.3% in Compartment 110 and 0.4% in Compartment 119, below Forest Plan minimum level of 0.5% (Forest Plan Amendment 5, page III-23) and below Forest Plan desired level of 3% (Forest Plan Amendment 5, page III-74); and
- Overstocked white pine plantations and understory vegetation are limiting the ability of desirable hardwood species to regenerate and produce hard mast for wildlife.

Other Alternatives Considered

In addition to the Selected Alternative, I considered 2 other alternatives. A comparison of these alternatives can be found in Section 2.4 of the EA.

Alternative 1 – No Action

Under the No Action alternative, current management plans would continue to guide management of the project area. I did not select this alternative because under it, white pine stands would continue to deteriorate and wildlife habitat would not be improved.

Alternative 3 – No Herbicide Use

Alternative 3 was similar to the Selected Alternative, but it did not propose using herbicides to reduce mountain laurel, rhododendron, soft mast tree species (such as red maple, black gum, black birch, wahoo striped maple, and silverbell) and invasive exotic species (tree of heaven, princess tree, and multi-floral rose). These treatments would be done with hand tools. I did not select this alternative because treating invasive exotic species by hand will require repeated treatments (up to 7) over the next 30-35 years (Section 3.2.3.3, T&T EA) versus only 2 treatments with the Selected Alternative. I believe it is important to meet resource objectives cost-effectively when the actions will also ensure protection of the environment. I believe that using herbicides as per the Vegetation Management FEIS, product labels, and Material Safety Data Sheets will ensure proper and safe application for both workers and the environment.

Public Involvement

A proposal to thin white pine was originally listed in the Schedule of Proposed Actions (SOPA) in 1998 under a project called Tucker Creek White Pine Thinning. The T&T White Pine Thinning Project was originally listed in the January 2002 (SOPA). The proposal was provided to the public and other agencies for comment during scoping in August 2002.

Using comments received from members of the public and other agencies, the interdisciplinary team (IDT) identified 3 Key Issues regarding the effects of the proposed action; Forest Health, Wildlife Habitat, and Herbicide Use (Section 1.7.1, T&T EA). To address these key issues, the Forest Service created the alternatives described above.

A 30-day review of the pre-decisional T&T EA was initiated on May 30, 2003, and was completed on June 30, 2003. Five written letters were received

from individuals and organizations. Appendix C, attached to this decision notice, discloses the comments received and the Agency's response.

Finding of No Significant Impact

After considering the environmental effects described in the EA, I have determined that these actions will not have a significant effect on the quality of the human environment considering the context and intensity of impacts (40 CFR 1508.27). Thus, an environmental impact statement will not be prepared. I base by finding on the following:

1. My finding of no significant environmenal effects is not biased by the beneficial effects of the action (Sections 3.2.3.2, 3.3.3.2, 3.3.3.4, 3.3.3.6, 3.4.2.2, Chapter 3 and Table B-2, Appendix B, T&T EA).

2. There will be no significant effects on public health and safety, because the Selected Alternative is small in scale (49 acres treated), effects are expected to remain localized and short-term, and implementation will be in accordance with mitigation measures (Section 2.2, Chapter 2 and Section 3.5.2.2, Chapter 3, T&T EA).

3. There will be no significant effects on unique characteristics of the area, because there are no park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas in the project area, nor are there local law or requirements imposed for the protection of the environment (Section 1.7.2.6, Chapter 1, T&T EA).

4. The effects on the quality of the human environment are not likely to be highly controversial because there is no known scientific controversy over the impacts of the project (Section 3.2.2, Chapter 3, T&T EA).

5. We have considerable experience with the types of activities to be implemented. The effects analysis shows the effects are not uncertain, and do not involve unique or unknown risk (Sections 1.7.2.1, 1.7.2.2, 1.7.2.3, 1.7.2.4, 1.7.2.5, and 1.7.2.6 Chapter 1, and Sections 3.2.3.2, 3.3.3.2, 3.3.3.3, 3.4.2.2, 3.5.2.2 and Table 3-4 Chapter 3, T&T EA).

6. The action is not likely to establish a precedent for future actions with significant effects, because the scale of the project is small (49 acres treated) and effects are expected to remain localized and short-term (Sections 1.7.2.1, 1.7.2.2, 1.7.2.3, 1.7.2.4, 1.7.2.5, and 1.7.2.6 Chapter 1, and Sections3.2.3.2, 3.3.3.2, 3.3.3.3, 3.4.2.2, and 3.5.2.2 Chapter 3, T&T EA).

7. The cumulative impacts are not significant (Sections 1.7.2.1, 1.7.2.2, 1.7.2.3, 1.7.2.4, 1.7.2.5, and Chapter 1, and Sections3.2.3.2, 3.3.3.2, 3.3.3.3, 3.4.2.2, and 3.5.2.2 Chapter 3, T&T EA).

8. The action will have no significant adverse effect on districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places, because the three Class II sites are either avoided or protected (Section 1.7.2.1 Chapter 1 and Section 2.2.3 Chapter 2, T&T EA). The action will also not cause loss or destruction of significant scientific, cultural, or historical resources, because the three Class II sites are either avoided or protected (Section 1.7.2.1 Chapter 1 and Section 2.2.3 Chapter 2, T&T EA). On June 5, 1998, the State Historic Preservation Office (SHPO) concurred with the findings of no adverse effect in the cultural report the Forest Service submitted for the Parker Creek project and on June 16, 1999, SHPO concurred with the findings of no adverse effects in the cultural report for the Tucker Creek project. The T&T project area falls within these two projects, so these concurrence letters adequately cover this project.

9. The action will not adversely affect any endangered or threatened species or their habitat that has been determined to be critical under the Endangered Species act of 1973, because the project entails thinning overstocked white pine plantations, does not entail road construction, and is small in scale (Sections 1.7.2.2 and 1.7.2.4 Chapter 1, Sections 3.3.2.1, 3.3.3.2 , 3.3.3.4, and 3.3.3.6 Chapter 3 and Appendix A, T&T EA). On June 5, 2003, the USDI Fish and Wildlife Service concurred that the proposed action will

have no effect on any species that is federally listed as endangered or threatened.

10. The action will not violate Federal, State, and local laws or requirements for the protection of the environment. Applicable laws and regulations were considered in the EA (Section 1.7.2.6 Chapter 1, T&T EA). The action is consistent with the Nantahala and Pisgah National Forests of North Carolina Land and Resource Management Plan and Forest Plan Amendment 5 (Section 1.4.3 Chapter 1, T&T EA).

Findings Required by Other Laws and Regulations

My decision to thin white pine plantations is consistent with the intent of the Forest Plan's long-term goals and objectives listed on pages III-1 – III-3 and pages III-1 and III-2 of Forest Plan Amendment 5. The project was designed to conform with land and resource management plan standards and incorporates appropriate land and resource management plan guidelines by providing for stocking density and species variety through timber stand improvement practices and thinning on a schedule that maintains optimum growth and desired mix of tree species for sawtimber production (Forest Plan, pages III-17 and III-69, and Forest Plan Amendment 5, page III-36).

Administrative Review or Appeal Opportunities

My decision is subject to appeal in accordance with 36 CFR 215.7. A written Notice of Appeal must be postmarked or received within 45 days after the date this notice is published in *The Asheville Citizen-Times*, Asheville, North Carolina. Appeals must meet content requirements of 36 CFR 215.14. The Notice of Appeal should be sent to:

USDA Forest Service
Southern Region
ATTN: Appeals Deciding Officer
1720 Peachtree Road NW, Suite 811N
Atlanta, GA 30309

Implementation Date

If no appeal is received, implementation of this decision may occur on, but not before, 5 business days from the close of the appeal filing period. If an appeal is received, implementation may not occur for 15 days following the date of appeal disposition. Implementation of this decision is expected to begin fall 2003.

Contact

For additional information of this project, contact Ted Oprean, Project Leader at USDA Forest Service Pisgah Ranger District, 1001 Pisgah Highway, Pisgah Forest, North Carolina 28768, or phone 828-877-3265; or Michael Hutchins, IDT Leader at USDA Forest Service Appalachian Ranger District, US 19E Bypass, Burnsville, North Carolina, 28714, or phone 828-682-6146.

Randall Burgess

RANDALL BURGESS
Pisgah District Ranger
Pisgah National Forest

7-31-03

Date

APPENDIX C – RESPONSE TO COMMENTS FOR THE T&T WHITE PINE THINNING PROJECT ENVIRONMENTAL ASSESSMENT

T&T White Pine Thinning Project
Environmental Assessment

Response to Comments

Key Interest 1:	**Riparian Areas**
Key Interest 2:	**Forest Health**
Key Interest 3:	**Wildlife Habitat**
Key Interest 4:	**Herbicide Use**
Key Interest 5:	**Cumulative Effects Analyses**

General Discussion

The Forest Service received 5 letters during the 30-day Notice and Comment Period for the T&T White Pine Thinning Project Environmental Assessment. This formal comment period began May 30, 2003, and ended on June 30, 2003.

Comments received from the USDI Fish and Wildlife Service indicated support for the proposed action and concurred it would have no effect on any species that is federally listed as endangered or threatened. They did note that removal of all white pine below State Road 1324 up to the streams edge should be undertaken with caution and conducted only where sufficient vegetation remains to maintain stable stream banks and proper stream temperature.

Comments received from the North Carolina Wildlife Resources Commission indicated that they favored the proposed action and that thinning white pine allows for development and promotes development of a mixed pine/hardwood stand that increases diversity and complexity. They also supported seeding temporary roads for linear wildlife fields, noting this is especially important in the Nantahala and Pisgah National Forests since the amount of acreage in this habitat type is currently insufficient and lags far behind the amount specified in the Forest Plan.

Comments received from Mr. William Piver of the National Wild Turkey Federation supported the proposed action as the best way to bring the area back into a more healthy forest; benefiting many varieties of wildlife.

Comments received from the Southern Appalachian Biodiversity Project (SABP) were generally against the location and type of some management actions. Comments focused on forest health (including riparian areas), wildlife habitat, herbicide use, and disclosure of cumulative effects. SABP prefers Alternative C as an action alternative as it does not propose using herbicides.

Comments received from The National Wild Turkey Federation were generally in support of the proposed action. The Federation requests Alternative C be selective because using herbicides would too effectively remove vegetation, reducing turkey and grouse nesting and browsing potential.

Key Interest 1: Riparian Areas

1-1 Comment: We note that in the environmental assessment, the USFS is proposing to remove all commercial white pine below State Road 1324 in stand 119/04 "*up to the stream edge*" (Double Branch) to protect archaeological resources. We want to emphasize that the removal of riparian vegetation should be undertaken with caution and should be conducted only where sufficient vegetation remains to maintain stable stream banks and proper stream temperature.

1-1 Response: All commercial white pine would be removed below the road to ensure the spread of annosus root rot would be controlled *as well as* to protect cultural resources. Hardwood trees would be left to provide stability and shade. Any tree that falls across or into the stream would be left in place (section 1.3, T&T EA, page 4 and section 2.1.2, Chapter 2). Site specific mitigation was also developed to ensure protection of resources below the road during harvesting (section 2.2.3, Chapter 2).

1-2 Comment: The need for the activities proposed for the T&T project are justifiable due to the threat of disease and pests. However, the proposed activities themselves need to be revaluated. The stands are all located in the headwaters of both Tucker and Parker Creeks. Stand 7 in Compartment 110 constitutes a portion of the stream bank of Tucker Creek. Management activities located in a riparian zone must be mitigated with the utmost precaution. In almost every other circumstance a 100-foot buffer is standard practice. In this proposal no such buffer will be established. Instead the "*trees along the streams edge would be directionally felled away*

from the stream". The impacts of tree removal in the riparian zone were not addressed adequately. The only solid justification for their removal was to preserve cultural resources. My question is why was this cultural resource not addressed when the plantation was planted? Was it not a concern 37 years ago? Also, if the protection of this archeological site is important why was it not addressed as a key issue?

1-2 Response: The stand in question is actually stand 4 in compartment 119 (portion of stand below state road 1324). Two fisheries biologists reviewed the area in question and concluded that removing the infected white pine and leaving their stumps would not likely increase water temperatures and overall large woody debris transport to Double Branch would not be measurably affected (section 1.7.2.2, Chapter 1). In addition, several mitigation measures were developed to protect water quality and fish habitat (sections 2.2.1 and 2.2.3, Chapter 2).

Removal of white pine trees within this riparian area was fully disclosed in the EA (section 1.3, Chapter 1; and sections 2.1.2 and 2.2, Chapter 2). As stated in the proposed action, trees would be directionally felled away from the stream, as well as left in place if they fall across the stream (section 1.3, Chapter 1).

It is true the primary reason to harvest and remove the infected white pine trees in this location is to protect cultural sites (section 1.7.2.1, Chapter 1). Removing the infected white pine will also allow hardwood tree species already established in the mid story to quickly move into the vacated overstory within a few years. The midstory hardwood trees will continue to provide shade over the stream channel. The cultural resources were likely not addressed when the plantation was established because the action of planting on old eroded fields and pasture land would protect the exposed archeological site which was at that time in an old eroded farm field. The white pine planting was done to convert existing farmland to forest in a short time period, halt the loss of soil from erosion, and rebuild soils depleted from decades of farming. Archeology was considered a non-key issue because through the proposed action (section 1.3, Chapter 1) and associated mitigation measures (section 2.2.3, Chapter 2) the issue was addressed without having to develop an additional alternative.

1-3 Comment: According to the management direction of the LRMP, "*where species or stand structure is manipulated, silvicultural treatments will be used to favor the diversification of riparian area plant and animal communities without negatively influencing stream temperature, natural hydrologic functioning, or travel corridor quality*". The question raised here is just how this management direction will be achieved by removing these trees? There is mention that because this is thinning, the canopy will be preserved to ensure that shade and therefore water temperature will be maintained. But there is no specific mention of what exactly will be done to ensure that this portion of Tucker Creek is adequately protected. The future desired condition of this stream bank and its associated stream were not addressed. It is our concern that the active management of white pine for timber harvest within a riparian zone is not justified or congruent with the management plan or basic ecological tenants.

1-3 Response: The following was disclosed in section 1.7.2.2, Chapter 1 of the EA: "*Within unit 119/04, white pine trees will be removed adjacent to Double Branch to protect archaeological resources. These trees are infected with a fungus that destabilizes the root structure, and they are falling over, which is disturbing significant cultural resources adjacent to Double Branch. Since only the white pine trees will be removed and the affected area is small, it is not likely that local stream temperatures and overall large woody debris (LWD) transport to Double Branch will be measurably affected. Since the treated stumps will be left on site to decay naturally, they will provide some bank stability as* they rot and revegetation occurs."

The Biologic Evaluation (BE) also disclosed in Appendix A that: "*Aquatic species, communities, and habitats will not be negatively affected by the changes in stream flow associated with the timber harvest proposed under any action alternative. Should stream flow increase after timber removal, aquatic habitat will be temporarily improved, especially during summer and fall months when stream flow is normally at its lowest. This improved habitat will provide increased summer refuge for aquatic species and may improve spawning conditions for*

brook trout and blacknose dace (since these species reproduce during the time increased flows would occur) in the North Fork of Tucker Creek, Tucker Creek, Double Branch, and Parker Creek if increased water yields make more spawning habitat available. However, these improvements are not expected to affect the standing crop of these species or overall community dynamics. Any improvement in aquatic habitat quantity associated with increased streamflows will likely be local, and not be measurable below the aquatic project area."

The section of Tucker Creek would be protected as per the design of the proposed action (section 1.3, Chapter 1) and mitigation measures (sections 2.2.1 and 2.2.3, Chapter 2) and is consistent with sound resource management based on the limited amount of area affected by the proposed action and the manner in which it would be carried out.

Key Interest 2: Forest Health

2-1 Comment: Plantations and their associated monocultures are anomalies and cannot be forced to fit into an ecological system without the use of intensive and heavy-handed management. The only way to alleviate this situation is to stop managing plantations and shift silvicultural paradigms towards restoring the forests "natural" state and ecological balance through adaptive and restorative management strategies.

2-1 Response: The stands proposed for treatment with this project were previously privately owned, with farming the primary land use. As soon as the lands were acquired by the Forest Service, a management plan was developed to convert the degraded farm fields and pasture back to forest land. The quickest and best method of reestablishing a forest on these types of land is to plant white pine plantations. White pine can establish itself and grows quickly, forming a forest canopy within 10 years of establishment. Its root systems are adept at breaking up fragipans (an extremely dense, impermeable soil layer) formed by decades of plowing. Its needle cast also provides nutrients to the soil and retains moisture within the developing soil layers. The purpose and need for the project is to improve forest health and wildlife habitat (section 1.4.1 and 1.4.2, Chapter 1, T&T EA); objectives the proposed action achieves.

2-2 Comment: In all three stands that will receive treatment there are three concerns that are raised. The following questions arise from these concerns: 1) How will the timber be removed from the site? 2) What will the timber be used for? 3) Will the boughs and tops be left on the ground or removed? The EA does not properly address these issues and without this information it is questionable as to how the potential impacts can be predicted. The mitigation measures touch on these issues but it is not mentioned whether or not these mitigations will be applied across the project area.

2-2 Response: 1) The timber would be removed by ground-based logging systems as disclosed in section 1.3, Chapter 1 and section 2.1.2, Chapter 2. Ground-based logging systems are generally rubber tired skidders, 4-wheel drive farm tractors, horses, etc. 2) Commercial sized white pine timber is generally used for dimensional lumber, studs, plywood, veneer, paneling, or beams. 3) Logging residue, or "slash" (limbs and tops) would be left where it falls, scattered evenly over the stand. Scattered slash rots quicker (within 2 years) than piled slash, reducing fire hazard. Some slash would be moved to brush in skid trails to prevent soil movement until they can revegetate.

2-3 Comment: The National Survey on Recreation and the Environment Public Survey Report conducted from November 2001 to April 2002 indicated the following top five issues relating to National Forests that the public felt were most important: 1) protecting sources of clean water, 2) passing along National Forests for future generations, 3) providing protection for wildlife and habitat, 4) providing places that are natural in appearance, and 5) protecting rare and endangered species. The T&T project does not fulfill several of these objectives effectively.

2-3 Response: The purpose and need for the T&T project is to 1) Improve residual white pine trees' resistance to southern pine beetle and reduce the loss of trees to annosus root rot and their economic value and 2) Improve wildlife habitat. The proposed action fulfills both these objectives.

Forest Service managers need to determine existing conditions in individual project areas to determine the best actions for meeting objectives. It would not be prudent to apply national survey results exclusively to every acre of National Forest System lands. The proposal designed for meeting the project's purpose and need is sound and addresses the existing condition.

Key Interest 3: Wildlife Habitat

3-1 Comment: Because this project will maintain the status quo the treatments and effects on terrestrial wildlife and their associated habitat appear to be minimal. There are only a few species that could potentially be affected by this action. The major concern that arises is the lack of mitigation measures proposed as part of this project for the protection of wildlife.

3-1 Response: Mitigation is almost always developed and applied when an action could cause adverse effects. The mitigation is applied to reduce or eliminate adverse effects. No specific wildlife mitigation was developed because the proposal would have no adverse effects on any wildlife species (sections 3.3.3.2, 3.3.3.4, and 3.3.3.6, Chapter 3 and Terrestrial Species portion of the BE, Appendix A).

3-2 Comment: Also many of the inventories and surveys are based on research that for all intensive purposes is antiquated and should be redone to ensure that the presence or absence of sensitive species is current and up to date. Some of the surveys that were conducted were adequate for some but not all wildlife species. For example the studies for black bears were based on surveys conducted almost a decade ago. To alleviate these concerns further study and proposed mitigation measures should be considered.

3-2 Response: Several wildlife habitat surveys were completed in the analysis area in the late 1990s and less than a year ago in the project area (section III, BE, Appendix A).

Key Interest 4: Herbicide Use

4-1 Comment: The major argument used to support the use of herbicide is to reduce cost by reducing the number of treatments needed in the understory to lower competition and remove invasive species. It is clear that the use of herbicide would accrue a much greater and potentially immeasurable cost to the environment and the health of Forest Service personnel. If one were to analyze the cost benefit ratio of herbicide use including the cost of medicinal insurance, potential lawsuits, and environmental degradation one would arrive at a figure that would most likely surpass that of the manual labor needed for Alternative C.

4-1 Response: It is true that the primary benefit of using herbicide versus handtools to control invasive or exotic plants is reduced labor and associated costs to achieve similar results.

4-2 Comment: The use of herbicide and the methods by which it will be applied will have a direct impact on the food web and water quality. This herbicide, although approved by the EPA, is not well understood. In the EA the form of Triclopyr that will be used is not even mentioned. The use of Triclopyr especially in its most toxic and persistent form, which is typically spayed, is known to have a negative impact on aquatic insects and fish. The fact that this herbicide will be applied in riparian zones should be a major concern. Establishing a 30-foot buffer along the stream corridor may not allow the herbicide to degrade before it enters the stream system. The degree to which this herbicide interacts and disrupts biology of organisms including humans is under-researched and inconclusive. We have learned in recent times that chemicals and free radicals in the

environment are far from harmless i.e. Pb, DDT, PCBs, etc. The use of Triclopyr is no exception. The use of herbicides is unnecessary and potentially disastrous.

4-2 Response: Effects of herbicide use on aquatics, wildlife, and humans was disclosed in the EA (section 1.7.2.2, Chapter 1 and sections 3.3.3.4, 3.3.3.6, 3.4.2.2, and 3.5.1.2, Chapter 3).

Garlon 3A and Garlon 4 were the two types of Triclopyr proposed for use as was disclosed in the EA (section 2.1.2, Chapter 2).

There is no plan to use herbicides within the designated Forest Plan riparian area (100 feet on perennial streams) of any of the aquatic analysis areas except on Double Branch and the North Fork of Tucker Creek (section 3.4.2.2, Chapter 3). As disclosed in the EA however, effects are expected to be minimal (section 1.7.2.2, Chapter 1 and section 3.4.2.2, Chapter 3) due to proper application as per the Vegetation Management EIS, Material Safety Data Sheets (MSDSs), and product labels.

Herbicide use has been shown to be a safe and effective way of controlling vegetation when applied in measures consistent with the Vegetation Management EIS, product labels, and MSDSs. A separate risk assessment for Triclopyr is in the project record (section 1.3, Chapter 1).

4-3 Comment: If the Forest Service is of the opinion that it is not cost effective to not use herbicides and protect riparian zones then they are wrong and not acting in the public interest. Based on public opinion citizens desire to have their watersheds protected and keep harmful chemicals out of the natural environment.

4-3 Response: The Forest Service has philosophical differences with SABP that whenever and however herbicides are used, the environment will be harmed and conversely, that not using herbicides will always protect the environment. We believe that site specific application with approved methods can achieve vegetation results and ensure protection of the environment.

4-4 Comment: I believe Alternative C, which uses hand control of vegetation would be best for wildlife species such as turkeys and grouse. Using herbicides would too effectively remove vegetation that is important for nesting, browsing, and predator control for these species.

4-4 Response: Alternative C would not use herbicides to control vegetation but would require multiple treatments with increased costs. Herbicide use was analyzed for wildlife species and determined to have no adverse effect on them (sections 3.3.3.4 and 3.3.3.6, Chapter 3).

Key Interest 5: Cumulative Effects Analyses

5-1 Comment: It is stated several times that critical habitats and sensitive species are found within the analysis area but not in the specific project area. Based on this fact it is assumed that there will be no impact and therefore there is no need to consider cumulative impacts to these important plants and animals. While on site activity may not directly impact individuals or populations it is important to consider cumulative effects.

5-1 Response: Cumulative effects were considered and disclosed in the EA for each alternative (sections 3.2.3.1, 3.2.3.2, 3.2.3.3, 3.3.3.5, 3.3.3.6, 3.4.2.1, 3.4.2.2, 3.4.2.3, 3.5.1.1, and 3.5.1.3, and Table 3-4, Chapter 3) and were not shown to have significant adverse effects.

5-2 Comment: Cumulative impacts across the landscape should be addressed at all feasible scales regardless of the number of acres directly affected. This project was once part of the much larger Parker Creek project, which was effectively abandoned due to opposition. This fact leads one to believe that the Forest Service has begun to subdivide large-scale projects into much smaller ones to disguise the cumulative impacts and make the

individual small-scale projects seem benign. The extent of cumulative impacts are already under studied and often ignored at the landscape level by the Forest Service.

5-2 Response: Direct and indirect effects were analyzed and disclosed for the project area scale—the three stands proposed for thinning. Cumulative effects were analyzed and disclosed for the analysis area scale—the furthest extreme they could be analyzed to (section 1.2, Chapter 1). Cumulative effects were not ignored (see response to Comment 5-2 above).